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Molins

[11] **4,073,300**

[45] **Feb. 14, 1978**

[54] **METHOD OF MAKING RUSSIAN CIGARETTES**

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[73] Assignee: **Molins Limited**, London, England

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Feb. 5, 1975 United Kingdom 4853/75

[51] **Int. Cl.**[2] **A24C 5/52**
[52] **U.S. Cl.** ..... **131/61 A**; 131/67
[58] **Field of Search** ..... 131/61 A, 61 R, 61 B, 131/65, 67

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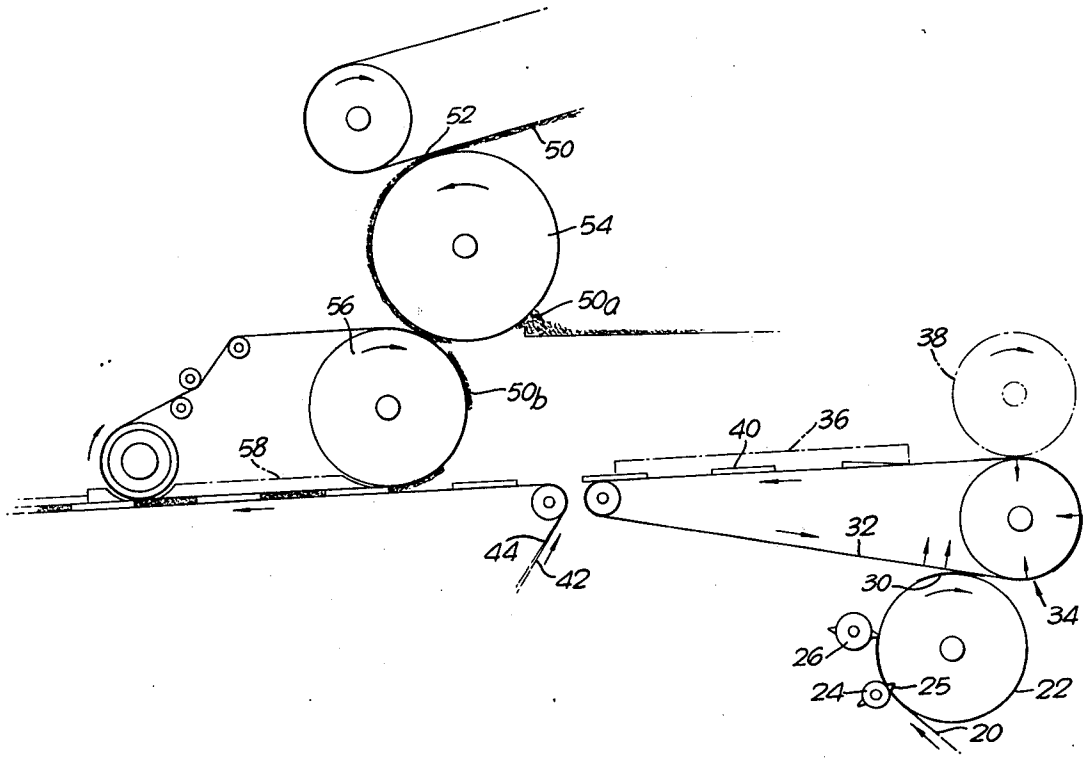
[57] **ABSTRACT**

Russian cigarettes are produced by an in-line system whereby tobacco sections are inserted between spaced tube portions. The tube portions may be fed as preformed tubes or as blanks in the form of flat strips or reverse folded strips for forming into tubes in a garniture. Russian cigarettes produced by this system are believed to have more uniform draw characteristics than conventional Russian cigarettes. Also disclosed is a method of producing Russian cigarettes having separate inner and outer tubes in which tobacco sections and pairs of inner tubes are intercalated on composite web sections, each of which comprise a central tobacco wrapper joined at each end to card sections for forming outer tubes. By precutting the composite web a continuous rod cut-off is avoided.

8 Claims, 9 Drawing Figures



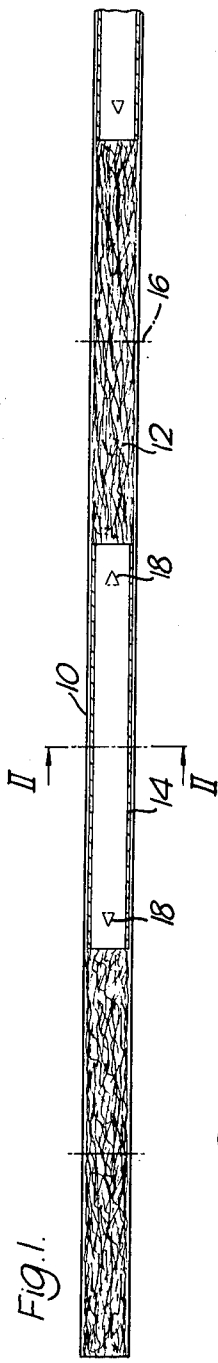


Fig. 1.

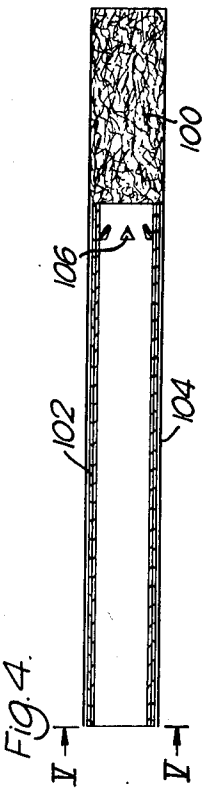


Fig. 4.

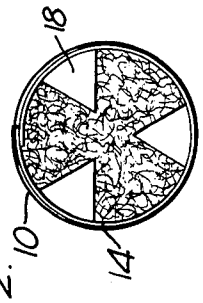


Fig. 2.

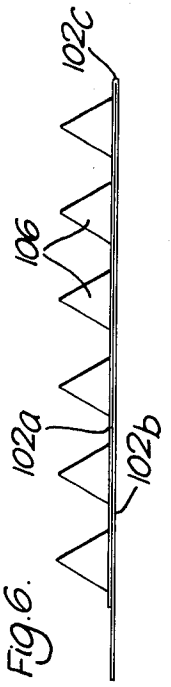


Fig. 6.

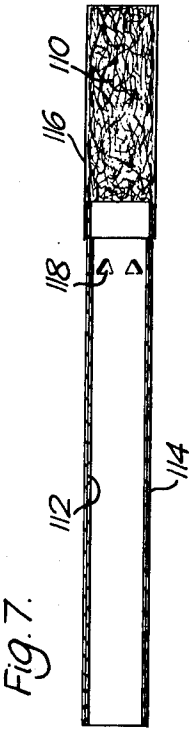


Fig. 7.

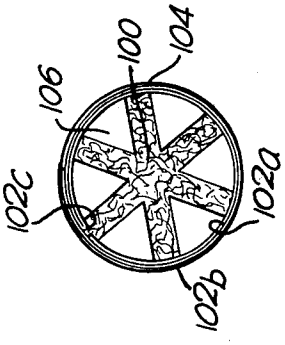


Fig. 5.

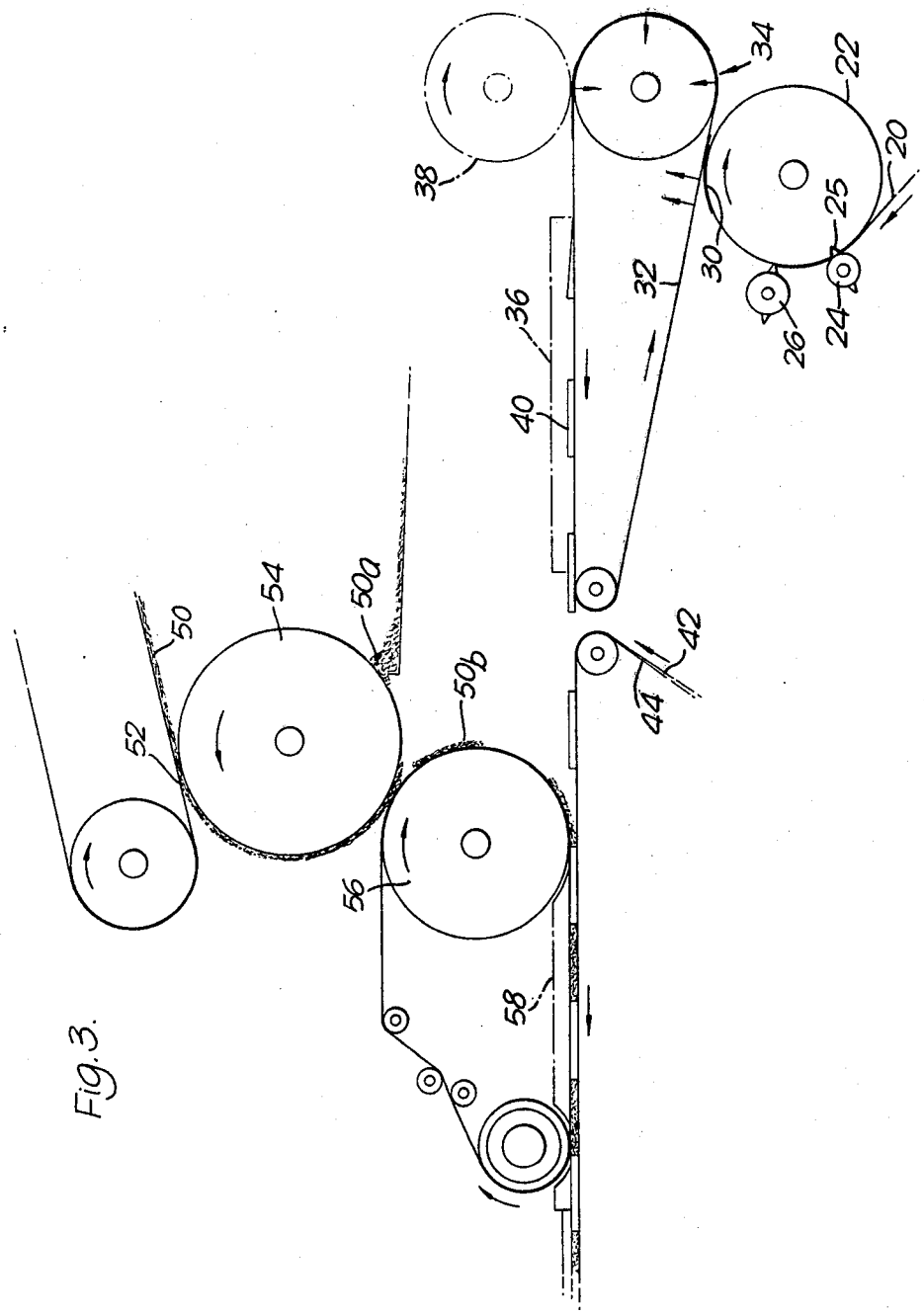


Fig. 3.

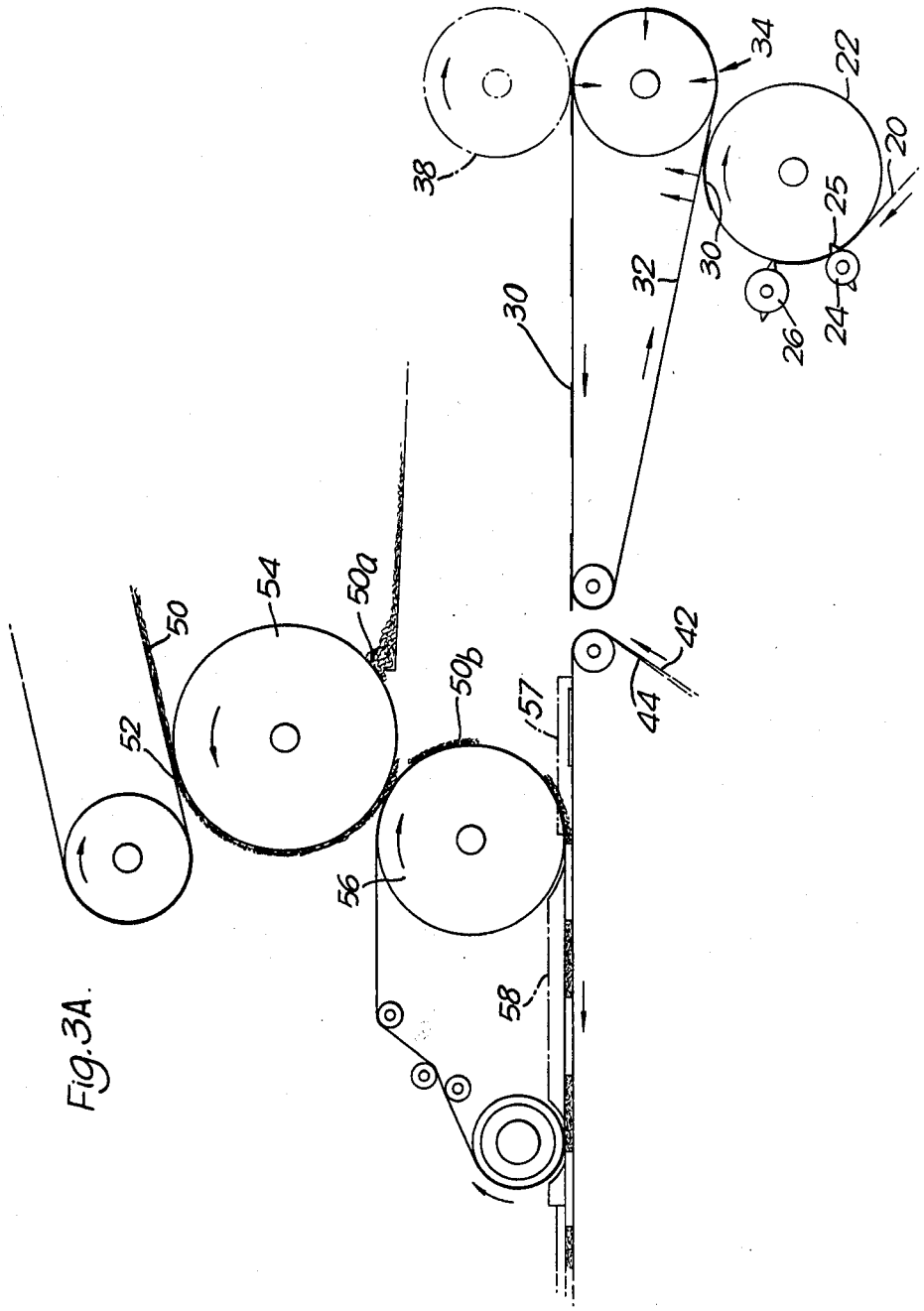


Fig. 3A.

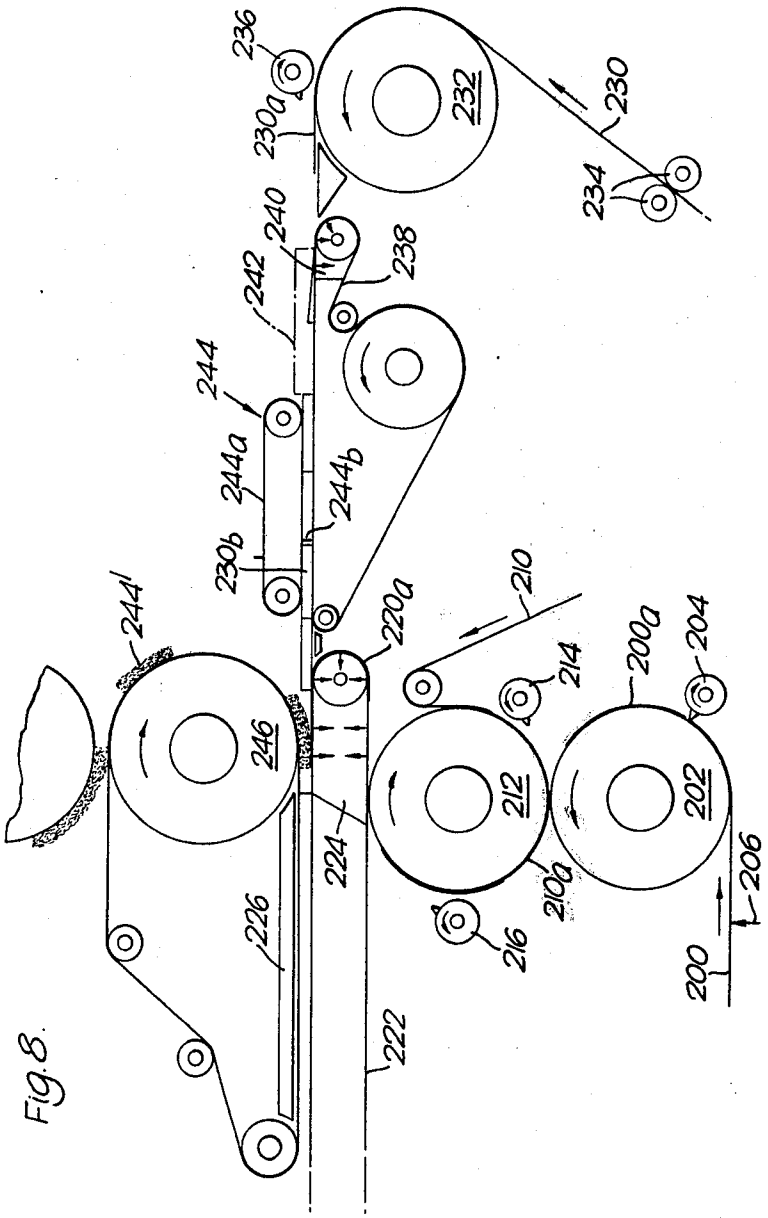

236
230a
232
230
234
240
242
238
244
244a
244b
230b
244'
220a
210
214
200a
204
246
212
202
224
210a
206
216
200
226
222

Fig. 8.

METHOD OF MAKING RUSSIAN CIGARETTES

This invention is concerned with Russian cigarettes and with a method for making such cigarettes.

Russian cigarettes generally include a tobacco portion and an abutting (or overlapping) tube of relatively stiff paper-like material. As used herein the term "Russian cigarette" means a cigarette generally of this construction. The tube and the tobacco portions are usually enclosed in a common paper wrapper. The tube is normally hollow throughout its length but sometimes includes one or more filter portions which are usually positioned adjacent the tobacco portion. Conventionally the tube is formed of a spiral roll comprising at least two complete revolutions of a sheet of stiff paper and the inner layer of the roll is perforated to produce raised flaps which extend radially inwards into the hollow tube. These flaps are normally positioned near the end of the tube next to the tobacco portion and serve to prevent tobacco being drawn down the hollow tube; where the cigarette is provided with a filter the flaps are not necessary.

A known method for manufacturing Russian cigarettes comprises forming a tube of paper wrapper, cutting it into lengths and inserting a tobacco portion in one end of each tube and a preformed tube (e.g. of relatively stiff card) in the other end. This is a slow process and can be expensive in tobacco usage.

One aspect of the present invention comprises a method of making Russian cigarettes comprising forming a stream of spaced tobacco portions, forming a stream of spaced tube portions, intercalating the tobacco portions and the tube portions to form an alternating stream, wrapping the alternating stream in a wrapper web to produce a rod, and dividing the rod into individual Russian cigarettes.

The tube portions may be in the form of preformed tubes or flat strips for forming into tubes. The tube portions may comprise other blanks which may be formed into tubes. Thus the blanks may comprise substantially flat reverse folded strips of paper-like material having an upper part (preferably formed with upstanding flaps near one end) and a lower part joined to the upper part along a longitudinal reverse fold line and lying parallel to and below the upper part. The lower part is slightly wider than the upper part so that when the strip is bent to form a tube, the upper part being bent to form the inner roll of the tube, the lower part forms the outer roll and surrounds the inner roll and overlaps the fold line.

The tobacco portions and the tube portions may be of double the length required for the final cigarette, the rod being cut at the midpoints of each tobacco and tube portion. The tobacco and tube portions may be intercalated on the wrapper web. Preferably the tube portions are placed on the web upstream of the tobacco portions. The alternating stream may be wrapped in a garniture device; where the tube portions consist of preformed tubes these may be formed from flat strips in a second garniture device positioned upstream of the first device. Alternatively where the tube portions consist of substantially flat strips these strips may be formed into tubes at substantially the same time as or just before the alternating stream is wrapped. Thus the alternating stream of strips and tobacco portions may be intercalated on a wrapper web and the strips formed into tubes and the web wrapped around the alternating stream of tubes and tobacco portions in a single garniture device. Folded blanks for forming into tubes may be fed forward and formed into tubes either in a separate garniture device or in the garniture in which the stream of tobacco and tube portions are enclosed in a wrapper web.

Another aspect of the invention provides a Russian cigarette having a tobacco portion; a tube member having an inner roll extending around an angle of about 360° and an outer roll joined to the inner roll by a longitudinally extending reverse fold line, the outer roll extending around an angle of at least 360° so that it surrounds the inner roll and extends to the longitudinal fold line; and an outer wrapper surrounding at least part of the tobacco portion and the tube member. By having a reverse fold the outer roll is disposed so that it overlies the inner roll adjacent the fold line. Preferably the outer roll extends over an angle in excess of 360° so that it extends over the longitudinal fold line. In this case the overlapping part of the outer roll may be left unsealed if the whole length of the tube member is to be enclosed in a wrapper web. Alternatively if the overlapping outer roll is sealed the outer wrapper need only extend over the tube member by a distance sufficient to connect it to the tobacco portion. The inner roll may be formed with radially inwardly extending flaps near the end near the tobacco portion. Alternatively (or additionally) the tube member may contain a filter portion.

The folded blank used to produce the tube member may be of the same size and shape as a conventional blank for forming a spiral roll: in the present arrangement of course a fold is formed between the inner and outer rolls which is not present in the conventional blank or tube.

It should be noted that if perforations or cut-outs are provided in the inner roll to produce upstanding flaps as previously described they are normally covered in the completed cigarette by both the outer roll and the outer wrapper. If, however, a single layer tube (which may be of thicker and/or stiffer material) were used and this were provided with such cut-outs the latter would be covered only by the outer wrapper.

It is contemplated that the method of the present invention is applicable to the production of Russian cigarettes having separate coaxial inner and outer tubes. Thus the tube portions may comprise preformed separate coaxial inner and outer tubes. Alternatively the outer tubes (or both tubes) may be fed as flat or open strips. The inner tube preferably need not be as long as the outer tube. If cut-outs to produce radially extending flaps are required these may be formed in the inner tube. The outer tube can have an unsealed lap joint which is held in position by an outer wrapper extending over the whole length of the tube, or the tube may have a sealed longitudinal joint in which case the outer wrapper need only extend over the tube by a distance sufficient to secure the tube member to the tobacco portion. Similarly, although the inner tube is preferably sealed to maintain its shape it may be in the form of a separate roll maintained in shape by the outer roll (or outer wrapper). Where the inner tube is in the form of an unsealed roll it should preferably extend around an angle exceeding 360° and have an overlapping portion.

Yet another aspect of the present invention provides a method of making Russian cigarettes including the steps of joining alternating open outer tube portions and wrapper sections by their ends to form a continuous web, feeding tobacco portions onto the wrapper sec-

tions between the outer tube portions, intercalating inner tube portions with said tobacco portions so that said inner tube portions overlie at least part of said outer tube portions, and wrapping the wrapper sections around the tobacco portions and the outer tube portions around the inner tube portions.

The outer tube portions are preferably in the form of substantially flat strips when they are joined to the wrapper sections. The inner tube portions may be fed onto the outer tube portions as preformed tube members or alternatively they may be fed as substantially flat strips which lie on the outer tube portions. Where the inner tube portions are intercalated as flat strips they may be formed into tube members as the outer tube portions are wrapped around them. Adhesive may be applied either to the inner or outer tube portions to locate the inner tube portions as they are intercalated on the outer tube portions.

Both tube portions, the tobacco portions, and the wrapper sections can be of double the length required for an individual Russian cigarette. This method may therefore produce a continuous wrapped rod formed of alternating double length tobacco portions and double length tubes, joined by the overlap of the wrapper sections for the tobacco portions. Individual Russian cigarettes could then be produced by cutting the rod at regular intervals corresponding to the mid-points of the double length tobacco portions and the double length tubes.

In a preferred arrangement, however, double length wrapper sections are joined to double length outer tube portions to form a continuous web as before but the web is subsequently cut at the mid-points of the tube portions. Preferably the tube portions are cut prior to the feeding of the tobacco portions (of double length) onto the wrapper sections. A pair of adjacent single length inner tube portions is intercalated with each tobacco portion, one inner tube portion for each of the parts of the cut outer tube portion. After wrapping, the product is therefore a succession of rods, each comprising a double length wrapped tobacco portion having single length tubes joined to each end. Individual Russian cigarettes may be obtained by cutting at the mid-points of the tobacco portion whilst the rods are moved transversely, e.g. on a fluted drum. In this way the expense and noise of a high speed cut-off for a continuous rod can be avoided.

In either of the methods defined herein the stream of spaced tobacco portions may be formed in accordance with the method disclosed in British patent specification Nos. 1396318 or 1396595 or British patent application No. 25738/73 (U.S. Ser. No. 472,922, German OS No. 2425902).

The invention will now be further described, by way of example only, with reference to the accompanying drawings in which:

FIG. 1 is a longitudinal section through part of a continuous Russian cigarette rod,

FIG. 2 is a transverse section on the line II—II in FIG. 1,

FIG. 3 is a diagrammatic elevation of apparatus for producing Russian cigarette rod,

FIG. 3A is a diagrammatic elevation, similar to FIG. 3 of modified apparatus for producing Russian cigarette rod,

FIG. 4 is a longitudinal sectional view of another construction of Russian cigarette,

FIG. 5 is a transverse sectional view on the line V—V of FIG. 4,

FIG. 6 is a transverse sectional view of part of the cigarette of FIG. 4 before assembly of the cigarette,

FIG. 7 is a longitudinal sectional view of another construction of Russian cigarette, and

FIG. 8 is a diagrammatic elevation of apparatus for producing the cigarette of FIG. 7.

Referring to FIGS. 1 and 2 a Russian cigarette rod comprises an outer paper wrapper **10** enclosing alternate tobacco portions **12** and card tubes **14**. The portions **12** and tubes **14** are of double the corresponding length in an individual cigarette. To produce an individual cigarette from the rod, cuts are made at positions **16** corresponding to the mid-points of the tobacco portions **12** and the tubes **14**. At positions near each end, each tube **14** is formed with three angularly-spaced triangular cut-outs **18** (FIG. 2) which are bent inwards to prevent tobacco being drawn down the tube when the cigarettes are smoked.

FIG. 3 shows an apparatus which may be used to produce the rod of FIG. 1. A web of card **20** is fed at a controlled speed onto a suction drum **22** rotating at a peripheral speed greater than the speed of the web **20**. A drum **24** adjacent the drum **22** carries cutting members which make the cut-outs **18** at appropriate positions in the web **20**. The drum **22** is provided with recesses as indicated at **25** to allow correct formation of the cut-outs **18**. A rotary knife member **26** also arranged adjacent the drum **22** cuts the web **20** at predetermined positions against hardened inserts on the drum **22**. Since the drum **22** is rotating faster than the speed of the web **20** the cut strips **30** of the web **20** are spaced apart by the drum. For further details of a cutting and spacing operation of this general type reference is directed to British patent specification No. 886,657.

The spaced cut strips **30** are received from the drum **22** by a suction band **32**. Whilst on the band **32** the strips **30** are provided with a stripe of glue along one longitudinal edge by a lap pencil gluer **34**. Subsequently the strips **30** are carried by the band **32** to a garniture tongue **36** where the strips are formed into tubes **40**, the stripe of glue effecting the tube seal. In order that the tubes **40** should be sealed properly it is preferable for the garniture tongue **36** to have an extended tip which extends inside the tube underneath the lap joint so that a glue heater can press onto the joint against the tip of the tongue **36**. It is possible that it may be desired to place one or more filter portions on the strips **30** before they pass into the garniture tongue **36**: in this case the filter portions are placed on the strips by a wheel indicated at **38**. From the suction band **32** the tubes **40** are passed onto a continuous paper wrapper web **42** carried by a garniture tape **44**. The web **42** may previously have had adhesive applied at appropriate positions in order to locate the tubes **40**.

A continuous tobacco stream **50** is formed by showering upwardly onto a suction band **52**. The stream **50** is passed onto a suction wheel **54** where the stream **50** is divided into alternating first portions **50*a*** and second portions **50*b***. The first portions **50*a*** correspond in length and spacing to the length and spacing of the tubes **40** and are returned to the hopper for recirculation in the tobacco shower. The second portions **50*b*** are transferred from the wheel **54** to a transfer wheel **56** where they are carried by suction onto the wrapper web **42** where they are released and intercalate with the tubes **40**. The formation of the tobacco portions and the

construction and operation of the wheels **54** and **56** is described and illustrated in the aforementioned British patent application No. 25738/73 (German OS No. 2425902). Other ways of producing spaced tobacco portions, which may be used with the present apparatus are described and illustrated in British patent specification Nos. 1396318 and 1396595.

After the tobacco portions **50***b* have been transferred onto the wrapper web **42** the resulting alternating stream of tubes **40** and tobacco portions **50***b* is passed on the web **42** into a garniture tongue **58** where the web is continuously wrapped and sealed around the stream to form the continuous Russian cigarette rod as shown in FIG. **1**.

In an alternative arrangement shown in FIG. **3A**, which is similar to FIG. **3** and in which similar reference numbers have been used where possible, the flat strips **30** are fed onto a wrapper web (and may be located thereon by appropriately placed adhesive) which corresponds to the web **42** in FIG. **3**. As the strips are fed towards the transfer wheel **56** and garniture tongue **58** so they are bent into a U formation in a region **57** prior to being intercalated with the tobacco portions **50***b*. It may be noted that the cut-outs **18** which are present in the flat strips as in the tubes **40** may be helpful in preventing any tendency of tobacco from the portions **50***b* to spread over the surface of the strips. The stream of intercalated tobacco portions and partially formed tubes are subsequently fed into the garniture tongue **58** where formation of the flat strips into tubes is completed and the wrapper web is sealed around the stream of tobacco portions and tubes. The flat strips which are fed onto the web **42** may previously have been supplied with a stripe of adhesive to facilitate formation of the strips into tubes in thegarniture; however it is possible that the strips may be the garniture; into tubes and held in their tube formation simply by the continuous paper wrapper formed from the web **42**.

In an alternative apparatus to that shown in FIG. **3** spaced flat card sections for forming into tubes are received on the wrapper which is supported by the garniture tape. Filter portions are fed onto the card sections (tube portions) and the stream passed through a device which forms the wrapper into a U-shape before receiving the spaced tobacco portions between the card sections. The wrapping and sealing is then completed, this final process also forming the card sections into tubes.

The Russian cigarette shown in FIG. **4** has a tobacco portion **100** and a tube member **102** enclosed in an outer paper wrapper **104** which extends over the length of the cigarette. The tube member **102** is of relatively stiff paper-like material. In a conventional Russian cigarette the tube member **102** would comprise a continuous spiral roll of this material. However, as can be seen from FIG. **5**, the present tube member comprises an inner roll or part **102***a* and an outer roll or part **102***b* joined by a longitudinally extending reverse fold line at **102***c*. The inner part **102***a* extends around almost 360° so that its free end lies adjacent the fold line **102***c* and the outer part **102***b* extends around more than 360° so that it covers the end of the inner part and the fold line.

As with conventional Russian cigarettes the inner part **102***a* of the tube member is formed with angularly spaced triangular cut-outs **106** which are bent inwards to form flaps which are intended to prevent tobacco being drawn down the tube when the cigarette is smoked. Where the cigarette is provided with a filter, which may be cotton wool positioned in the tube adjacent the tobacco, the cut-outs **106** may be omitted.

FIG. **6** shows the tube member **102** in a flat folded condition prior to assembly into the cigarette of FIG. **4**. The tube members **102** in this form may replace the strips **30** (which are formed into tube portions **40**) in the assembly of the Russian cigarette of FIG. **4** by the apparatus of FIG. **3** or FIG.3A.

FIG. **7** shows another construction of Russian cigarettes having a tobacco portion **110**, an inner tube **112**, an outer tube **114** and an outer paper wrapper **116** which encloses the tobacco portion and which is adhesively secured to the adjacent end of the outer tube. Both the inner and outer tubes are formed with longitudinal lap seams. The inner tube **112**, which is slightly shorter than the outer tube **114**, is provided with triangular cut-outs **118** as before. Alternatively, a filter could be provided preferably in the end of either the inner or the outer tube nearest the tobacco portion or in the other end of the inner tube. As compared with conventional Russian cigarettes of the same size the construction of FIG. **7** can offer a saving in material of about 62% in the outer wrapper **116** and of about 3½% in the material for the tubes **112**, **114**.

The construction of the cigarette of FIGS. **4** and **5** may be modified so that the outer wrapper **104** extends over the tube member **102** only by so far as is necessary to secure the tobacco portion **100** to the tube member. In order for the tube member to have an acceptable form it would then be necessary for the free end of the outer part **102***b* to be longitudinally sealed down onto the underlying outer part **102***b*.

Referring now to FIG. **8**, apparatus suitable for the production of the cigarette of FIG. **7** is shown. A web **200** of card for the outer tube **114** is fed at a controlled speed onto a suction drum **202** rotating at a peripheral speed greater than the speed of the web **200**. A rotary knife member **204** adjacent the drum **202** cuts the web **200** at predetermined positions against hardened inserts on the drum so that the web is cut into sections **200***a*, each having a length corresponding to double the length of the outer tube **114** in an individual Russian cigarette. Since the drum **202** is rotating faster than the speed of the web **200** the cut sections **200***a* of the web are spaced apart by the drum. For further details of a cutting and spacing operation of the general type used on drum **202** (and also used elsewhere in the present apparatus), reference is directed to British patent specification No. 886,657. Prior to being cut the web **200** is pasted with adhesive (by an applicator at **206**) at positions corresponding to the ends of the strips **200***a*.

A web **210** of paper for the outer wrapper **116** is fed at a controlled speed onto another suction drum **212** arranged adjacent the drum **202**. A rotary knife member **214** cuts and spaces the paper into sections **210***a* in a manner similar to that already described with reference to drum **202**. Each of the paper sections **210***a* has a length corresponding to double the length of the outer wrapper **116** in an individual Russian cigarette.

The card sections **200***a* are fed from the drum **202** onto the drum **212**. The spacing of the card sections **200***a* on drum **202** and of the paper sections **210***a* on drum **212** are such that the card sections are fed between the paper sections. For this purpose the speeds of drum **202** and **212** are preferably equal. The card sections **200***a* overlap the paper sections **210***a* slightly (by the amount of overlap present in FIG. **7**) and, since the ends of the card sections carry adhesive, the card and

paper sections are joined into a comtinuous web on drum **212**. This continuous web is subsequently cut on the drum **212** by a rotary knife member **216** at the mid-points of the card sections **200***a*. Thus at the knife **216** the web is cut into composite sections **220***a* which comprise a double length paper section **210***a* with a single length card section (i.e. half a section **200***a*) adhesively joined to each end. After cutting the composite sections **220***a* (which remain adjacent each other on drum **212** since there is no speed differential to produce spacing) are supplied to a garniture tape **222** passing around a suction chamber **224** into a garniture **226**. The speed of tape **222** is preferably equal to the peripheral speed of drums **212** and **202**.

A web **230** of card for the inner tube **112** is fed at a controlled speed onto a further suction drum **232**. Before being fed onto the drum **232** the web **230** is fed through rollers **234** which are provided with means for making the cut-outs **118** at appropriate positions in the web. A rotary knife member **236** is arranged adjacent the drum **232** to cut the web **230** into sections **230***a*, each having a length corresponding to a single length of the inner tube **112** in an individual cigarette. The sections **230***a* may be spaced by the differential speed of the web **230** and the drum **232**, or by a differential speed of the drum **232** and a tape **238** to which the sections are fed by the drum, or by a combination of both.

The tape **238** passes around a suction chamber **240** near the drum **232** and carries the sections **230***a* through a garniture **242**, which may be identical to the garniture **36** described with reference to FIG. **3**. As with the FIG. **3** arrangement filter portions may, if desired, be placed on the sections **230***a* before entry into the garniture **242**. In the garniture **242** the sections **230***a* are formed into inner tubes **230***b* with a longitudinal seam. The inner tubes **230***b* are carried out of the garniture **242** by the tape **238** and under a timing member **244**.

The timing member **244** comprises a band **244***a* carrying projections **244***b*. The band **244***a* is driven at the same speed as the garniture tape **222**. The speed of the tape **238** is slightly less than that of the garniture tape **222**. As the spaced inner tubes **230***b* are fed from the garniture **242** by the tape **238** the timing member **244** collates them in pairs by means of the projections **244***b* which engage the trailing ends of alternate tubes. After engagement by one of the projections **244***b* the trailing tube of a pair of tubes collated by the timing member **244** is driven forward relative to the tape **238** (i.e. at the speed of the garniture tape **222**) until it abuts the leading tube, whereafter both tubes are fed onto the garniture tape **222**.

Feed of the pairs of inner tubes **230***b* onto the garniture tape **222** is synchronised with the feed of the composite sections **220***a* by the tape. Each abutting pair of inner tubes **230***b* is fed onto the outer tube card sections (**200***a*) of the composite sections **220***a*. The division between the pair of inner tubes corresponds to the division between adjacent composite sections, i.e. each inner tube **230***b* lies over one half of a card section **200***a* as divided by the knife member **216**. Adhesive could be applied to the card sections (**200***a*) of the composite sections **220***a* (or to the inner tubes **230***b*) in order to securely locate the inner tubes **230***b*.

Spaced double length tobacco portions **244** are delivered onto the paper sections (**210***a*) of the composite sections **220***a* by a transfer wheel **246** arranged over the garniture tape **222** and suction chamber **224**. The tobacco portions **244** are intercalated with the pairs of single length inner tubes **230***b*. Formation of spaced tobacco portions and operation of a transfer wheel similar to wheel **246** are described and illustrated in the aforementioned British patent application No. 25738/73 (German OS No. 2425902). Other ways of producing spaced tobacco portions are described and illustrated in British patent specification Nos. 1396318 and 1396595.

Thus a stream consisting of closely adjacent composite sections **220***a* is delivered into the garniture **226** by the tape **222**. Each composite section **220***a* carries a double length tobacco portion **244** lying over a double length wrapper section (210*a*) and single length inner tubes **230***b* lying at each end of the tobacco portion over single length outer tube sections (**200***a*). In the garniture **226** the outer tube sections are wrapped around the inner tubes and the paper wrapper sections are wrapped around the tobacco portions and each is formed with a longitudinal seam. The product issuing from the garniture is therefore a double length Russian cigarette member comprising a pair of cigarettes with their tobacco portions (and their wrappers) joined. Individual Russian cigarettes can be produced by cutting the double length members at the mid-points of the tobacco portions, preferably while the members are moving transversely, e.g. in a fluted drum.

The apparatus and method described above has the advantage that the noise and expense of a continuous rod cut-off is avoided. However, by omitting the knife member **216** and the timing member **244**, and by appropriately feeding double length inner tube portions, a continuous Russian cigarette rod could be produced. This would then be cut at the mid-points of the double length tobacco portions and also at the mid-points of the tubes to produce individual Russian cigarettes.

In another possible arrangement the composite sections **220***a* are spaced on the garniture tape **222**. By appropriate spacing this arrangement could obviate the need for collating the inner tubes in pairs so that spaced single length inner tubes could simply be fed directly onto the garniture tape. In this arrangement in particular, but also in the other arrangements described, it could be advantageous to feed the inner tubes as strips onto the outer tube sections and reply on the main garniture **226** to form both the inner and outer tube members.

Although not shown in FIG. **8** or described specifically it should be realised that in the formation of longitudinal seams, either in the inner or outer tubes or in the paper wrapper, adhesive may be supplied in or prior to entry into the garniture. For example, the garniture **226** may include an adhesive applicator for sealing the longitudinal seam on the outer tube sections and the paper wrapper, whereas in the case of the inner tubes longitudinally sealed in garniture **242** adhesive may be appropriately applied to the web **230** before it contacts the drum **232**.

In the apparatus of FIG. **8** the paper web **210** is cut on the drum **212** by the rotary knife member **214** and separated by the differential speed of the drum and knife member and the web. Since the spacing required of the paper sections **210***a* is quite large the speed differential should also be quite large and this could create problems of paper snatch. This could be overcome by a slack loop provision in the paper web feed or, alternatively, by perforating the web instead of cutting it. In this latter arrangement snatch can be deliberately used to separate the web at the perforations by providing a driving roller

adjacent the drum and a pair of retaining rollers prior to the drum.

The apparatus of FIG. **8** may also be used to produce Russian cigarettes of the construction shown in FIGS. **4** and **5**. The drum **202** can be used to feed spaced strips of the kind shown in FIG. **6** onto a continuous paper web supplied to drum **212** (the rotary knife members **214** and **216** not being used). Alternatively a composite web comprising alternating paper sections and strips as in FIG. **6** could be formed on drum **212** to produce a modified construction having a paper wrapper which extends only partly over the tube member. This would require the use of rotary knife member **214**, and of knife member **216**, if use of a continuous rod cut off were to be avoided.

I claim:

1. A method of making Russian cigarettes, each cigarette comprising axially adjacent tobacco and double-walled tube portions, each said tube portion comprising an inner tube and an outer tube; said method comprising feeding a plurality of reverse folded strip portions, each said strip portion comprising a first part for forming said inner tube and a second part for forming said outer tube, said first and second parts being joined along a longitudinal reverse fold line and lying substantially parallel to each other, said fold lines being parallel to the direction of movement of said strip portions; feeding a plurality of said tobacco portions so as to form an alternating stream of said strip and tobacco portions; forming said strip portions into said double-walled tube portions, each said inner tube comprising said first part and each said outer tube comprising said second part, and wrapping said alternating stream to produce a rod; and dividing said rod into individual Russian cigarettes.

2. A method as claimed in claim **1** wherein the tube portions are formed whilst in the alternating stream.

3. A method as claimed in claim **2** wherein the strip portions are formed into tubes and the alternating stream is wrapped at substantially the same position.

4. A method of making Russian cigarettes, each cigarette comprising axially adjacent tobacco and double-walled tube portions, each said tube portion comprising an inner tube and an outer tube; said method comprising feeding a plurality of reverse folded strip portions, each said strip portion comprising a first part for forming said inner tube and a second part for forming said outer tube, said first and second parts being joined along a longitudinal reverse fold line and lying substantially parallel to each other, said fold lines being parallel to the direction of movement of said strip portions; forming said strip portions into said double-walled tube portions with each said inner tube comprising said first part and each said outer tube comprising said second part; feeding a plurality of said tobacco portions so as to form an alternating stream of said tobacco and tube portions; wrapping said alternating stream to produce a rod; and dividing said rod into individual Russian cigarettes.

5. A method as claimed in claim **4** wherein the tube portions are formed with cut-outs which produce inwardly directed flaps in the tube of the Russian cigarette.

6. A method as claimed in claim **4** in which a filter portion is introduced onto each strip portion and the strip portion is formed into a tube portion around the filter portion.

7. A method of making at least one Russian cigarette, said cigarette comprising axially adjacent tobacco and double-walled tube portions, said tube portion comprising an inner tube and an outer tube; said method comprising feeding at least one reverse folded strip portion comprising a first part for forming at least one inner tube and a second part for forming at least one outer tube, said first and second parts being joined along a longitudinal reverse fold line and lying substantially parallel to each other, said fold line being parallel to the direction of movement of said strip portion; forming said strip portion into at least one double-walled tube with an inner tube comprising said first part and an outer tube comprising said second part; feeding at least one tobacco portion so as to form at least one assembly of alternating tube and tobacco portions in axially adjacent relationship; wrapping said assembly to produce a rod; and dividing said rod into individual Russian cigarettes.

8. A method of making at least one Russian cigarette, said cigarette comprising axially adjacent tobacco and double-walled tube portions, said tube portion comprising an inner tube and an outer tube; said method comprising feeding at least one reverse folded strip portion comprising a first part for forming at least one inner tube and a second part for forming at least one outer tube, said first and second parts being joined along a longitudinal reverse fold line and lying substantially parallel to each other, said fold line being parallel to the direction of movement of said strip portion; feeding at least one tobacco portion so as to form at least one assembly of alternating strip and tobacco portions in axially adjacent relationship; forming each strip portion into a double-walled tube with an inner tube comprising said first part and an outer tube comprising said second part and wrapping said assembly to produce a rod; and dividing said rod into individual Russian cigarettes.

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